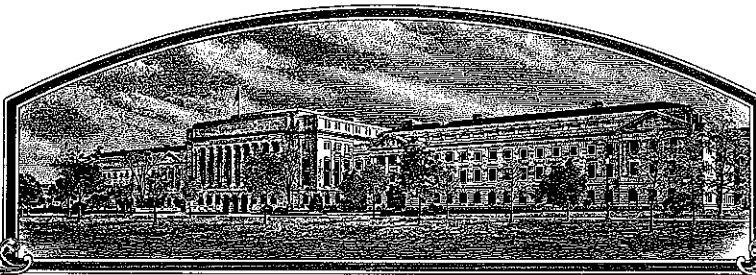


No.

200400265



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

D&H Technology Holding Company, LLC.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED IN THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

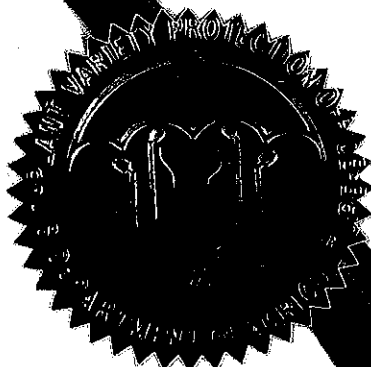
'DP 445 BG/RR'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this nineteenth day of September, in the year two thousand and five.

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

## APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER <b>D&amp;PL Technology Holding Company, LLC.</b>		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME <b>01W93BR</b>		3. VARIETY NAME <b>DP 445 BG/RR</b> LAW 12/30/04	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country ) <b>PO Box 157 100 Main Street Scott, Mississippi 38772 USA</b>		5. TELEPHONE (include area code) <b>(662) 742-4141</b>		6. FAX (include area code) <b>(662) 742-3182</b>	
7. IF THE OWNER IS NOT A "PERSON" GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) <b>Limited Liability Company</b>		8. IF INCORPORATED, GIVE STATE OF INCORPORATION <b>Delaware</b>		9. DATE OF INCORPORATION <b>February 29, 1996</b>	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) <b>Delta and Pine Land Company Kelly Casavechia P.O. Box 157 Scott, MS 38772</b>				FILING AND EXAMINATION FEE: <b>\$ 3,652.00</b> DATE <b>6/31/04</b> CERTIFICATION FEE: <b>\$ 682.00</b> DATE <b>8/8/05</b>	
11. TELEPHONE (include area code) <b>(662) 742-4141</b>		12. FAX (include area code) <b>(662) 742-3182</b>		13. E_MAIL <b>kelly.h.casavechia@deltaandpine.com</b>	
14. CROP KIND (Common Name) <b>Cotton</b>		15. GENUS AND SPECIES NAME OF CROP <b>Gossypium hirsutum</b>		16. FAMILY NAME (Botanical) <b>Malvaceae</b>	
17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse). a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)			
19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (If "no", go to item 22)		20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO			
21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)			
23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.  The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.  Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF OWNER <b>Robert McGowen</b>		SIGNATURE OF OWNER <b>William V. Hugie</b>			
NAME (Please print or type) <b>Robert McGowen</b>		NAME (Please print or type) <b>William V. Hugie</b>			
CAPACITY OR TITLE <b>Cotton Breeder</b>		DATE <b>6/15/04</b>		CAPACITY OR TITLE <b>Vice President/Director of Research</b>	
DATE <b>6/23/04</b>					

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable ( *in the sense that it will reproduce an entire plant* ) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320 filing fee and \$2,385 examination fee), payable to "Treasurer of the United States" ( *See Section 97.6 of the Regulations and Rules of Practice* .) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office  
Telephone: (301) 504-5518  
FAX: (301) 504-5291  
Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

## ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieites, lines, or clones used, and the breeding method  
(2) the details of subsequent stages of selection and multiplication;  
(3) evidence of uniformity and stability; and  
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) Identify these varieties and state all differences objectively;  
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and  
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed* ), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (*See Regulations and Rules of Practice, Section 97.103*).
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

**Bollgard® with Roundup Ready® cotton**

THESE SEEDS ARE COVERED UNDER U. S. PATENTS 5,633,435; 5,500,365; 5,424,200; 5,359,142; 5,352,605; 5,530,196; 5,322,938; 5,196,525; 5,188,642; 5,164,316; 4,940,835; 5,717,084; 5,728,925; and 5,804,425.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (*See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.*)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705.  
Telephone: (301) 504-8089. <http://www.ams.usda.gov/lsg/seed/lsg-sd.htm>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U. S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

S&T-470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (02-99) which is obsolete.

## EXHIBIT A

D&PL TECHNOLOGY HOLDING COMPANY, LLC'S  
APPLICATION FOR01W93BR ~~'DP 445 BG/RR'~~ <sup>WAL</sup> 12/30/04  
'DP 445 BG/RR' <sup>WAL</sup> 11/10/05

## ORIGIN AND BREEDING HISTORY

01W93BR (01W93BR-066) was developed by the backcross breeding method. The donor parent DP 50 BGRR whose donor parents in turn was a plant of the cotton variety COKER 312 LINE 1445 and a line with insertion 531 of construct PV-GHBK06 containing a *Bacillus thuringiensis* var. *kurstaki* pesticide protein developed by the Monsanto Company imparting resistance to Lepidopteran insects. LINE 1445 was developed by the MONSANTO COMPANY using Recombinant DNA techniques to introduce a resistant version of the gene EPSPS which encodes the enzyme: 5-enolpyruvylshikimate-3-phosphate synthase (EPSPS). This modified EPSPS was originally isolated from the common soil borne microorganism *Agrobacterium sp.* strain CP4 and confers to LINE 1445 resistance or tolerance to the herbicide glyphosate [formulation of glyphosate, N (phosphonomethyl) glycine] commercialized under the trade name ROUNDUP.

The F<sub>1</sub>, BC<sub>1</sub>, and BC<sub>2</sub> crosses were made in Delta and Pine Land Company's greenhouse in Scott, MS. BC<sub>2</sub>F<sub>1</sub> plants were grown and selfed in the greenhouses located at Scott, MS. BC<sub>2</sub>F<sub>2</sub> plants were grown and selfed in the field near Puntarenas, Costa Rica in 1999.

BC<sub>2</sub>F<sub>3</sub> progeny rows were grown at Scott, MS in the summer of 2000. Progeny rows were tested for trueness to type of the recurrent parent SG 501. Those true to type and also containing the "Roundup Ready Gene" in a homozygous form and tested positive for the presence of the "BollGard Gene" were selected for increase. The line 01W93BR-066 was sent to winter nursery in Costa Rica for increase during the 2000-01 season.

01W93BR-066 was evaluated across the cotton belt in replicated research plots in 2001, 2002, and 2003. Separate isolated increases of 01W93BR-066 were grown in 2001, 2002, and 2003. In 2004, 01W93BR-066 was given the experimental name of 01W93BR.

## STATEMENT OF UNIFORMITY AND STABILITY

01W93BR has been observed every generation since 2000 and has shown to be uniform and stable. No variants or off-type plants have been observed. Less than 2% of the plants do not contain the gene insertion 1445 which imparts resistance to the herbicide Roundup and the gene insertion 531 which imparts resistance to Lepidopteran insects.

## EXHIBIT B

D&PL TECHNOLOGY HOLDING COMPANY, LLC'S  
APPLICATION FOR

01W93BR

~~DP 445 BG/RR~~ LALL 12/30/04  
'DP 445 BG/RR' LALL 1/10/05

## STATEMENT OF DISTINCTNESS

01W93BR is an early maturing smoothleaf cotton variety most similar to DP 444 BG/RR. 01W93BR plants carry the gene insertion 1445 of a construct developed by the MOSANTO COMPANY, which causes these plants to be tolerant to the herbicide ROUNDUP (glyphosate) and the gene of Insertion 531 of construct PV-GHBK04 containing a *Bacillus thuringiensis* var. *kurstaki* pesticide protein imparting resistance to Lepidopteran insects. DP 444 BG/RR, the comparison variety in this application, also contains the gene insertions of 1445 and 531 as described above.

Coker 312 Line 531 has the following transgenic insertion.

Phenotype: Lepidopteran insect resistance  
constructs: PV-GHBK04  
genotype:

- promoter: CMoV – A 0.6 Kb 35S promoter region of cauliflower mosaic virus.
- gene: *cryIA* © - FL *B.t.k.* – a 3.6 Kb gene encoding the full length *Bacillus thuringiensis* insect control protein.
- 3' non-translated region: E9 3' – the 0.7 Kb 3' non-translated region of the pea *rbcS*-E9 gene *Agrobacterium tumefaciens* T-DNA.

Selectable marker:

- promoter 35S – A 0.35 Kb 35S promoter region of cauliflower mosaic virus.
- gene: NPT II – the 0.83 Kb neomycin phosphotransferase type II gene that confers kanamycin resistance.
- 3' non-translated region: NOS 3' – from the nopaline synthase gene of *Agrobacterium tumefaciens* T-DNA.

LINE 1445 was developed by the MONSANTO COMPANY using Recombinant DNA techniques to introduce a resistant version of the gene EPSPS which encodes the enzyme: 5-enolpyruvylshikimate-3 phosphate synthase (EPSPS). This modified EPSPS was originally isolated from the common soil borne microorganism *Agrobacterium sp.* Strain CP4 and confers to LINE 1445 resistance or tolerance to the herbicide glyphosate { formulation of glyphosate, N (phosphonomethyl) glycine } commercialized under the trade name ROUNDUP.

DP 445 BG/RR 11/10/05  
DP 445 BG/RR 12/30/04

Significant differences in fiber properties have been observed between 01W93BR and DP 444 BG/RR. 01W93BR has higher micronaire, longer fiber length, higher uniformity, higher fiber strength, and higher elongation than DP 444 BG/RR.

Trait	01W93BR	Greater or Less than	DP 444 BG/RR	Level of Significance
Micronaire	4.39	>	4.05	**
Fiber length (inches)	1.156	>	1.143	**
Uniformity (%)	84.82	>	84.51	**
Fiber strength (g/tex)	32.48	>	30.89	**
Elongation	13.85	>	12.69	**

\* significant difference at 0.05 level of probability

\*\* significant difference at 0.01 level of probability

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

EXHIBIT C  
(COTTON)

OBJECTIVE DESCRIPTION OF VARIETY  
COTTON (*Gossypium* spp.)

NAME OF APPLICANT(S) <b>D&amp;PL TECHNOLOGY HOLDING COMPANY, LLC.</b>	TEMPORARY DESIGNATION <b>01W93BR</b>	VARIETY NAME <b>DP 445 BG/RR</b> <i>WLL 11/10/05 12/30/06</i> <b>DP 445 BG/RR</b>
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) <b>P.O. Box 157 100 N. Main Street Scott, Mississippi 38772</b>		FOR OFFICIAL USE ONLY PVPO NUMBER <b>200400265</b>

Place the appropriate data that describes the varietal characteristic of this variety in the space provided. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characters marked with an asterisk \* indicate necessary characters to be measured.

SPECIFIC VARIETIES USED FOR COMPARISON AS CHECK VARIETIES IN THIS APPLICATION: Use standard regional check varieties which are adapted to your area. One of the comparison varieties must be the most similar variety used in Exhibit B.

Variety 1. DP 444 BG/RR Variety 2. \_\_\_\_\_ Variety 3. \_\_\_\_\_

1. SPECIES:  
X *G. hirsutum* L. \_\_\_\_\_ *G. barbadense* L.

2. AREA(S) OF ADAPTATION: (A = Adapted, NA = Not Adapted, NT = Not Tested)  

<u>A</u> Eastern	<u>A</u> Delta	<u>A</u> Central	<u>NT</u> Blacklands
<u>NA</u> Plains	<u>A</u> Western	<u>A</u> Arizona	<u>NT</u> San Joaquin
<u>Other (Specify):</u> _____			

GENERAL: Characteristics which are known to be variable but are still useful for a meaningful description of the variety.

	Application Variety	Comparison Variety 1	Comparison Variety 2	Comparison Variety 3
Plant Habit:				
spreading, Intermediate, Compact	<u>Intermediate</u>	<u>Compact</u>		
Foliage:				
parse, Intermediate, Dense	<u>Sparse</u>	<u>Sparse</u>		
Stem Lodging:				
lodging, Intermediate, Erect	<u>Intermediate</u>	<u>Intermediate</u>		
Flowering Branch:				
clustered, Short, Normal	<u>Short</u>	<u>Short</u>		

GENERAL: (continued)

Growth:

Determinate, Intermediate,  
Indeterminate

Intermediate Intermediate

REPLACEMENT 8/20/04  
200400265 LAL

**Leaf Color:**

Greenish yellow, Light green,  
Medium green, Dark green

Light green Light green

**Boll Shape:** Length less than width,

Length equal to width,

Length more than width

Length more than width

Length more than width

**Boll Breadth:** Broadest at base,

Broadest at middle

Broadest at base

Broadest at base

**\*4. MATURITY:** (50 % Open bolls; Preferred method; Describe method if different method was used.)

Date of 50 % open bolls

September 20

September 16

**5. PLANT:**

**Cm to 1st Fruiting Branch:**

from cotyledonary node)

NA

NA

**No. of Nodes to 1st Fruiting Branch:**

excluding cotyledonary node)

4.7

4.3

**Mature Plant Height cm:**

from cotyledonary node to terminal)

106

110

**\*6. LEAF:** Upper most, fully expanded leaf.

Type: Normal, Sub Okra,

Okra, Super Okra

Normal

Normal

Pubescence: Absent, Sparse,

Medium, Dense OR Trichomes/cm<sup>2</sup>

Bottom surface excluding veins)

Sparse

Sparse

Vectaries: Present or Absent

Present

Present

**\*7. STEM PUBESCENCE:**

Glabrous, Intermediate, Hairy

Intermediate

Intermediate

**\*8. GLANDS:** (Gossypol) Absent, Sparse, Normal, More Than Normal

Leaf:

Normal

Normal

Stem:

Normal

Normal

Calyx Lobe: (normal is absent)

Normal

Normal

**\*9. FLOWER:**

Petals: Cream, Yellow

Cream

Cream

Pollen: Cream, Yellow

Cream

Cream

Petal Spot: Present, Absent

Absent

Absent



\*10. SEED:

REPLACEMENT 8/20/04  
200400265 LALL

Seed Index:

g/100 seed, fuzzy basis) 10.9 10.6

Lint Index:

g lint/100 seeds) 4.3 4.36

\*11. BOLL:

Lint Percent:

X Picked 39.9 39.7

OR

Lint Turnout:

     Picked      Stripped

Number of Seeds per Boll 33.5 33.4

Grams Seed Cotton per Boll 4.2 4.5

Number of Locules per Boll 4-5 4-5

Boll Type:

Stormproof, Storm Resistant, Open) Open Open

2. FIBER PROPERTIES:

Specify Method (HVI or other): HVI

Length: (inches, 2.5% SL) 1.156 1.143

Uniformity: ( %) 84.82 84.51

Strength, T1 (g/tex) 32.48 30.89

Elongation, EI ( %) 13.85 12.69

Micronaire: 4.39 4.05

Fineness (Source     )

Stem Tenacity: (cN/tex, 27 tex)

Stem Strength: (lbs. 22's)

3. DISEASES: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

NT *Alternaria macrospora*

NT Fusarium Wilt

NT Anthracnose

NT Phymatotrichum Root Rot

NT Ascochyta Blight

NT *Pythium* (specify species)

NT Bacterial Blight (Race 1)

NT *Rhizoctonia solani*

NT Bacterial Blight (Race 2)

NT Southwestern Cotton Rust

     Bacterial Blight (Race     )

NT *Thielaviopsis basicola*

3. DISEASES : (continued)

NT Diplodia Boll Rot

NT Verticillium Wilt

REPLACEMENT 8/20/0  
200400265 LAL

Other (specify)

14. NEMATODES, INSECTS AND PESTS: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

Root-Knot Nematode

Reniform Nematode

Boll Weevil

Grasshopper (specify species):

Bollworm

Lygus (specify species):

Cotton Aphid

Pink Bollworm

Cotton Fleahopper

Spider Mite (specify species):

Cotton Leafworm

Stink Bug (specify species):

Cutworm (specify species):

Thrips (specify species):

Fall Armyworm

Tobacco Bud Worm

Other (specify):

5. COMMENTS: Present any additional information that cannot adequately be described in 1 through 13 which significantly distinguishes our variety.

## EXHIBIT D

## D&amp;PL TECHNOLOGY HOLDING COMPANY, LLC.

Application for:

01W93BR

DP 445 BG/RR <sup>LAH 11/10/05</sup>  
~~DP 445 BG/RR <sup>LAH 12/30/04</sup>~~

Table 1. Head to head comparisons of 01W93BR with DP 444 BG/RR

YEAR	REG-ION	EXPT	COUNTY	STATE	Lint Turnout		Micronaire		Length		Uniformity Ratio		Strength		Elongation	
					01W93 BR	DP 444 BG/RR	01W93 BR	DP 444 BG/RR	01W93 BR	DP 444 BG/RR	01W93 BR	DP 444 BG/RR	01W93 BR	DP 444 BG/RR	01W93 BR	DP 444 BG/RR
2001	NODE	12CY0327	LONOKE	AR	41.9	39.5	4.9	4.4	1.19	1.17	85.0	84.5	31.6	29.8	13.3	11.6
2001	NODE	12LE0325	WASHINGTON	MS	39.2	38.5	5.2	4.4	1.21	1.23	84.5	85.8	33.8	31.6	10.9	11.2
2001	NODE	12MN0326	MISSISSIPPI	AR	38.4	38.3	4.5	4.0	1.22	1.19	85.0	84.2	31.6	30.3	12.7	11.8
2001	NODE	12SK0330	SCOTT	MO	39.0	39.7	3.9	3.5	1.20	1.21	86.8	86.7	31.7	30.5	14.6	13.6
2002	AZ	23CO0704	PINAL	AZ	42.8	40.9										
2002	AZ	23MA0703	PINAL	AZ	41.2	40.7										
2002	NODE	22CY0313	LONOKE	AR	41.7	42.2	4.8	4.3	1.20	1.16	88.0	86.1	32.6	30.0	13.2	13.9
2002	NODE	22SK0314	SCOTT	MO	39.9	41.8	4.1	3.5	1.19	1.15	85.4	87.7	34.2	32.2	15.6	14.9
2002	NODE	23MN0312	MISSISSIPPI	AR	43.9	43.0	4.5	4.2	1.15	1.15	91.0	88.6	31.9	29.7	14.5	12.9
2002	NODE	23SM0311	BOLIVAR	MS	40.1	40.8	4.8	4.2	1.18	1.16	89.8	88.4	35.7	34.2	14.0	11.6
2002	NOSE	23GB0115	WAYNE	NC	39.7	39.4	4.9	4.3	1.16	1.12	90.8	90.2	32.2	29.6	17.0	15.2
2002	NOSE	23HV0114	DARLINGTON	SC	39.3	37.9	4.2	3.7	1.11	1.09	85.1	86.3	32.7	30.2	14.9	13.6
2002	SODE	23NE0430	TENSAS	LA	41.2	40.4	4.7	4.0	1.17	1.16	88.0	88.0	30.6	31.0	13.9	12.3
2002	SODE	24PB0413	SHARKEY	MS	40.9	41.4	4.4	4.2	1.19	1.16	87.2	86.0	32.4	29.7	13.2	12.0
2002	SODE	24PU0414	SHARKEY	MS	38.9	38.6	4.3	3.7	1.15	1.15	87.4	87.0	32.0	30.7	12.6	12.0
2002	SOSE	23TF0212	TIFT	GA	41.9	42.3	4.2	3.8	1.15	1.12	85.6	86.4	29.5	27.4	14.4	13.2
2002	TXHP	23SN0643	MARTIN	TX	43.6	43.8	4.3	4.6	1.10	1.10	85.3	84.6	31.1	28.5	14.0	12.2
2003	AZ	34CO0706	PINAL	AZ	40.3	39.6	5.1	4.9	1.19	1.14	84.3	83.8	32.1	29.1	14.0	12.8
2003	AZ	34MA0729	PINAL	AZ	37.8	38.2	5.1	4.8	1.21	1.25	85.3	84.8	29.9	32.1	13.7	10.7
2003	CALF	1055023377	FRESNO	CA	37.0	37.0	4.4	4.3	1.14	1.13	83.0	83.0	31.6	29.5		
2003	CALF	1055023378	KERN	CA	36.7	35.3	4.4	3.9	1.13	1.13	83.0	83.0	33.0	30.6		
2003	CTBL	2047000155	WILLIAMSON	TX	33.2	32.0	3.8	3.5	1.10	1.08	82.0	82.0	30.1	28.4		
2003	CTBL	2047000156	BRAZOS	TX	35.4	35.6	4.6	4.0	1.09	1.09	83.0	83.0	29.9	28.6		
2003	NODE	2048000528	MADISON	TN	38.8	39.7	3.9	3.5	1.11	1.11	81.2	81.2	31.9	30.7		
2003	NODE	2056000221	MISSISSIPPI	AR	38.7	38.4	4.9	4.5	1.14	1.13	84.0	83.0	34.3	31.9		
2003	NODE	2056000225	PEMBISCOT	MO	38.1	36.3	3.4	3.4	1.17	1.17	82.5	82.2	30.0	31.0		
2003	NODE	34CY0306	LONOKE	AR	41.2	43.1	4.7	4.2	1.20	1.18	85.0	85.5	34.8	33.9	12.6	10.9
2003	NODE	34MN0307	MISSISSIPPI	AR	41.6	42.4	4.5	4.2	1.18	1.16	85.0	84.8	31.6	33.5	11.4	12.2
2003	NODE	34SK0308	SCOTT	MO	42.7	42.4	5.1	4.6	1.27	1.25	88.5	86.5	39.1	34.5	11.4	11.8
2003	NODE	34SM0305	BOLIVAR	MS	40.0	39.2	4.3	4.1	1.15	1.14	84.8	84.9	32.1	32.5	12.1	11.5
2003	NOSE	2060000254	DARLINGTON	SC	39.5	39.7	4.2	4.0	1.16	1.15	83.4	83.7	31.9	32.8		
2003	NOSE	34GB0107	WAYNE	NC	39.8	40.3	3.1	3.3	1.15	1.12	83.4	82.6	36.0	32.5	15.3	13.7
2003	NOSE	34HV0109	DARLINGTON	SC	41.2	41.3	4.2	4.0	1.17	1.19	84.6	84.8	36.4	34.6	14.5	12.9
2003	NOSE	34RM0108	HALIFAX	NC	43.8	42.6	4.7	4.0	1.13	1.12	85.4	84.3	35.7	33.0	15.4	14.1
2003	NOSE	34SC0106	SAMPSON	NC	40.4	40.4	3.7	3.4	1.12	1.13	83.1	82.7	29.5	27.9	14.4	14.0
2003	SODE	2050000293	WASHINGTON	MS	35.0	35.7	4.7	4.3	1.16	1.12	83.7	83.0	33.4	32.3		
2003	SODE	34PB0413	SHARKEY	MS	41.0	39.4	4.5	3.8	1.15	1.15	84.0	84.0	34.1	32.3	13.2	12.3
2003	SODE	34PU0414	SHARKEY	MS	39.5	38.9	4.2	3.6	1.18	1.15	84.0	83.0	34.9	33.2	13.3	12.3
2003	SOSE	2046000169	LIMESTONE	AL	39.8	41.5	3.4	3.4	1.15	1.11	83.0	82.0	34.2	32.0		
2003	SOSE	34TF0202	TIFT	GA	41.6	41.9	4.0	3.5	1.15	1.13	83.0	82.8	31.5	30.4	14.5	13.0
2003	SOSE	34WC0261	ATKINSON	GA	42.1	42.7	3.9	3.8	1.16	1.15	84.3	83.8	33.2	31.5	14.1	12.3
2003	SOSE	34WU0259	ATKINSON	GA	41.6	41.0	3.9	3.8	1.14	1.14	84.2	83.9	31.5	30.4	14.1	12.3
2003	SOTX	2042000167	NUECES	TX	39.1	38.1	5.0	4.7	1.10	1.10	82.0	82.0	31.4	29.9		
2003	SOTX	2042000168	SAN PATRICIO	TX	35.1	36.7	4.9	4.6	1.13	1.08	83.0	82.0	32.1	30.0		
2003	TXRP	34AO0560	JACKSON	OK	41.5	40.9	4.3	4.4	1.16	1.14	84.1	84.4	28.4	27.2	13.7	13.4
2003	TXRP	34HD0559	HASKELL	TX	41.4	39.5	5.5	5.2	1.08	1.04	81.5	81.0	34.3	31.6	16.2	14.1
2003	TXRP	34MU0561	KNOX	TX	41.8	40.1	4.1	4.4	1.16	1.16	84.4	85.0	29.7	27.2	15.0	13.1
Average					39.98	39.76	4.39	4.05	1.156	1.143	84.82	84.51	32.48	30.89	13.9	12.7
No. Comparisons					47		45		45		45		45		33	
Difference					0.22		0.34		0.013		0.31		1.59		1.16	
F ratio - Analysis of Variance					2.066		79.855		21.138		6.093		65.277		59.850	
Probability of difference - F test					0.157		<0.0001		<0.0001		0.0175		<0.0001		<0.0001	

Values in red are derived from the Analysis of Variance routine in the EXCEL - ANALYSIS TOOL PAK add-in

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

**EXHIBIT E  
STATEMENT OF THE BASIS OF OWNERSHIP**

1. NAME OF APPLICANT(S) <b>D&amp;PL TECHNOLOGY HOLDING COMPANY, LLC.</b>	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER <b>01W93BR</b>	3. VARIETY NAME <b>'DP 445 BG/RR'</b> <sup>LAW</sup> 1/10/05 <del>'DP 445 BGH/RR'</del> <sup>LAW</sup> 12/30/00
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) <b>P.O. Box 157 Scott, Mississippi 38772</b>	5. TELEPHONE (Include area code) <b>(662) 742-4141</b>	6. FAX (Include area code) <b>(662) 742-3182</b>
7. PVPO NUMBER <b>2004 00265</b>		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain.

☒

YES

☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country.

☒

YES

☐ NO10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐

YES

☐

NO

If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐

YES

☐

NO

If no, give name of country

11. Additional explanation on ownership (If needed, use the reverse for extra space):

**01W93BR contains two proprietary genes, patented by the Monsanto Company and licensed to D&PL. One gene encodes a protein providing resistance to the herbicide glyphosate, and the other encodes an insect toxin.****PLEASE NOTE:**

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.